

**THE FOLLOWING ARE THE ENGLISH TRANSLATION
OF ANNEXES TO THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT (ARTICLE 34):**

Amended Sheets (Pages 45-50)

What is claimed is:

1. A precipitated silica which has the following physical and chemical properties:
 - 5 CTAB surface area 100-160 m²/g
 - BET surface area 100-190 m²/g
 - DBP value 180-300 g/(100 g)
 - Sears value V₂ 15-28 ml/(5 g)
 - Moisture level 4-8%
 - 10 Ratio of Sears value V₂ to
BET surface area 0.150 to 0.280 ml
(5m²)
2. The precipitate silica as claimed in claim 1,
15 wherein
the BET surface area is 100 to 170 m²/g.
3. The precipitated silica as claimed in claim 1 or
2,
20 wherein
the CTAB surface area is from 100 to 150 m²/g.
4. The precipitated silica as claimed in any of
claims 1 to 3,
25 wherein
the Sears value V₂ is from 20 to 28 ml/(5 g).
5. The precipitated silica as claimed in any of
claims 1 to 3,
30 wherein
the Sears value V₂ is from 22 to 28 ml/(5 g).
6. The precipitated silica as claimed in any of
claims 1 to 5,
35 wherein
the DBP value is from 200 to 250 g/(100 g).
7. The precipitated silica as claimed in any of

claims 1 to 5,
wherein
the DBP value is from 250 to 280 g/(100 g).

5 8. The precipitated silica as claimed in any of
claims 1 to 7,
wherein
the ratio of Sears value V_2 to the BET surface
area is from 0.170 to 0.280 ml/(5 m²).

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9. The precipitated silica as claimed in any of
claims 1 to 8,
wherein
the BET/CTAB ratio is from 0.9 to 1.2.

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10. A process for preparing precipitated silicas,
which comprises

- 20 a) taking an aqueous solution of an alkali metal
silicate or alkaline earth metal silicate
and/or of an organic and/or inorganic base with
an alkali value from 7 to 30 as initial charge,
b) metering water glass and an acidifier
simultaneously into this initial charge at from
25 55 to 95°C, with stirring, for from 10 to 120
minutes, in such a way that during the
precipitation the AV remains constant at from
15 to 30,
c) using an acidifier to acidify to pH of from
approx. 2.5 to 6, and
30 d) filtering, washing and drying.

11. The process as claimed in claim 10,
wherein
the AV in step b) is from 18 to 30.

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12. The process as claimed in claim 10 or 11,
wherein
after step a), the steps carried out comprise

b') stopping the feed for from 30 to 90 minutes while maintaining the temperature, and
b'') then, at the same temperature, for from 10 to 120 minutes, preferably from 10 to 60 minutes,
5 simultaneously adding water glass and an acidifier in such a way that the AV remains constant during the precipitation.

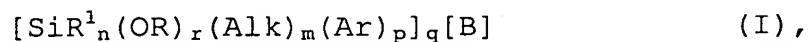
10 13. The process as claimed in claim 10 or 12, wherein during step b) and/or b') and/or b'') an organic or inorganic salt is added.

15 14. The process as claimed in any of claims 10 to 13, wherein for the drying process use is made of a pneumatic drier, spray drier, disk drier, belt drier, rotating-tube drier, flash drier, spin flash drier, or spray tower.

20 15. The process as claimed in claims 10 to 14, wherein after the drying process, a roller compactor is used for pelletizing.

25 16. The precipitated silica claimed in any of claims 1 to 9, whose

30 Surfaces have been modified with organosilanes of the formulae I to III



or



35

where

B is -SCN, -SH, -Cl, -NH₂, -OC(O)CHCH₂,
-OC(O)C(CH₃)CH₂ (if q = 1), or -S_w- (if q

R and R¹ = 2), B being chemically bonded to Alk, are an aliphatic, olefinic, aromatic, or arylaromatic radical having 2-30 carbon atoms, optionally with substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid, carboxylic ester, acrylate, methacrylate, or organosilane radical, where the meaning or substitution of R and R¹ may be identical or different,

n is 0, 1, or 2,

15 Alk is a bivalent unbranched or branched hydrocarbon radical having from 1 to 6 carbon atoms,

m is 0 or 1,

20 Ar is an aryl radical having from 6 to 12 carbon atoms, preferably 6 carbon atoms, which may have substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid, carboxylic ester, acrylate, methacrylate or organosilane radical,

25 p is 0 or 1, with the proviso that p and n are not simultaneously 0,

30 q is 1 or 2,

w is a number from 2 to 8,

r is 1, 2, or 3, with the proviso that $r + n + m + p = 4$,

35 Alkyl is a monovalent unbranched or branched saturated hydrocarbon radical having from 1 to 20 carbon atoms, preferably from 2 to 8 carbon atoms,

Alkenyl is a monovalent unbranched or branched

unsaturated hydrocarbon radical having from 2 to 20 carbon atoms, preferably from 2 to 8 carbon atoms.

- 5 17. The precipitated silica as claimed in any of claims 1 to 9, whose surfaces have been modified with organosilicon compounds whose composition is
- 10 $\text{SiR}^2_{4-n}\text{X}_n$ (where $n = 1, 2, 3, 4$),
 $[\text{SiR}^2_x\text{X}_y\text{O}]_z$ (where $0 \leq x \leq 2$; $0 \leq y \leq 2$; $3 \leq z \leq 10$, where $x + y = 2$),
 $[\text{SiR}^2_x\text{X}_y\text{N}]_z$ (where $0 \leq x \leq 2$; $0 \leq y \leq 2$; $3 \leq z \leq 10$, where $x + y = 2$),
- 15 $\text{SiR}^2_n\text{X}_m\text{OSiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3$; $0 \leq m \leq 3$; $0 \leq o \leq 3$; $0 \leq p \leq 3$, where $n + m = 3$, $o + p = 3$),
 $\text{SiR}^2_n\text{X}_m\text{NSiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3$; $0 \leq m \leq 3$; $0 \leq o \leq 3$; $0 \leq p \leq 3$, where $n + m = 3$, $o + p = 3$),
and/or
- 20 $\text{SiR}^2_n\text{X}_m[\text{SiR}^2_x\text{X}_y\text{O}]_z\text{SiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3$; $0 \leq m \leq 3$; $0 \leq x \leq 2$; $0 \leq y \leq 2$; $0 \leq o \leq 3$; $0 \leq p \leq 3$; $1 \leq z \leq 10\ 000$, where $n + m = 3$, $x + y = 2$, $o + p = 3$)
where
- 25 R^2 is alkyl and/or aryl radicals, substituted and/or unsubstituted, having from 1 to 20 carbon atoms, and/or is alkoxy and/or alkenyl and/or alkynyl groups, and/or is sulfur-containing groups,
- 30 X is a silanol, amino, thiol, halogen, alkoxy, alkenyl and/or hydrogen radical.
18. A process for preparing the silicas as claimed in claim 16 or 17, which comprises
- 35 modifying the precipitated silicas with organosilanes in mixtures of from 0.5 to 50 parts, based on 100 parts of precipitated silica, in particular from 1 to 15 parts, based on 100 parts

of precipitated silica, where the reaction between precipitated silica and organosilane is carried out during the preparation of the mixture (in situ) or externally via spray application and subsequent heat-conditioning of the mixture, via mixing of the organosilane and the silica suspension with subsequent drying and heat-conditioning.

19. The use of silicas as claimed in any of claims 1 to 18 in elastomer mixtures, in vulcanizable rubber mixtures, and/or in other vulcanizates, such as pneumatic tires, tire treads, cable sheathing, hoses, drive belts, conveyor belts, V-belts, roller coverings, tires, shoe soles, gaskets, and damping elements.

20. The use of silicas as claimed in any of claims 1 to 18 in battery separators, as antiblocking agent, as matting agent in inks and paints, as carrier for agricultural products and for feeds, in coatings, in printing inks, in fire-extinguisher powders, in plastics, in the non-impact printing sector, in paper pulp, or in the personal care sector.

21. A vulcanizable rubber mixture or a vulcanizate comprising, as filler, the precipitated silica as claimed in claim 1, with the following physical and chemical properties:

CTAB surface area	100-160 m ² /g
BET surface area	100-190 m ² /g
DBP value	180-300 g/(100 g)
Sears value V ₂	15-28 ml/(5 g)
Moisture level	4-8%
Ratio of Sears value V ₂ to BET surface area	0.150 to 0.280 ml/(5 m ²).